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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,544	02/27/2004	Ludwig Angerpointner	9743/6	7092

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EXAMINER	
PHAM, LEDA T	

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/788,544	ANGERPOINTNER, LUDWIG	
	Examiner	Art Unit	
	Leda T. Pham	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/24/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Preliminary Amendment

1. Preliminary Amendment filed on 2/27/04 has been entered and made of record in the file.

2. Claims 1 – 19 are presented for examination.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1- 3, 6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Larsen et al. (U.S. Patent No. 5,231,374).

Larsen discloses in figure 2, a device for transferring electric currents comprising a slip ring unit (12) comprising a rotor (26) with connecting wires (34) and a stator (24), and a printed circuit board (40), wherein said printed circuit board comprises conductors (sensors) in electrical contact with said connecting wires (34), wherein a torque required for rotary movement between said rotor and said stator is introduced via said printed circuit board (column 1, lines 13 – 15, the electrical signal current from printed circuit board go through rotor created torque in the rotor and stator).

Referring to claim 2, Larsen discloses the connecting wires (34) transmit current and are arranged in a geometrically determined pattern out of said rotor (26), and said printed circuit

board (40) comprises connecting points (sensor pins) that are connected with said connecting wires (34) and that are arranged in a pattern that is in accordance with said geometrically determined pattern (lines 52 – 55, column 5).

Referring to claim 3, Larsen discloses an outer portion of said slip ring (12) unit is used as said stator (24) and an inner portion of said slip ring unit is used as said rotor (26, figure 2).

Referring to claim 6, Larsen discloses the device further comprising a remote-controlled object (see as printed circuit board 40 to control current) that transmits and/or receives electrical currents via said slip ring unit.

Referring to claim 8, Larsen teaches a device for transferring electric currents (figure 2), comprising a slip ring unit (12) having a rotor (26) with connecting wires (34) and a stator (26); and a printed circuit board (40) said printed circuit board comprising conductors (sensor) in electrical contact with said connecting wires (34) of said rotor (26); and connecting points (sensor pins), wherein a torque required for rotary movement between said rotor and said stator is introduced via said printed circuit board (column 1, lines 13 – 15), wherein an outer portion of said slip ring unit is used as said stator and an inner portion of said slip ring unit is used as said rotor and several ones of said connecting wires (34) are conducted out of said rotor for transmitting current in accordance with a geometrically determined pattern, and said connecting points (sensor pins) with said connecting wires are arranged in a pattern that is in accordance with said geometrically determined pattern.

1. Claims 9 – 10, 14 are rejected under 35 U.S.C. 102(e) as being anticipated by England et al. (U.S. Patent No. 6,304,014 B1).

England discloses a device for transferring electric currents (figure 1a) comprising a slip ring unit (1) having a stator (not show) with connecting wires (17 - 19) and a rotor (20, figure 1a), and a printed circuit board (13) fastened to said stator and comprising conductors (11) that are in electrical contact with said connecting wires of said stator, wherein said printed circuit board is used as a torque support (current supplied to excitation winding on printed circuit board 13 to energize the resonator 23 rotating with the shaft, line 5 – 17, column 5).

Referring to claim 10, the device for transferring electric currents in England discloses several ones of said connecting wires (17 - 19) are conducted out of said stator in accordance with a geometrically determined pattern and said connecting points with said connecting wires are arranged in a pattern that is in accordance with said geometrically determined pattern (figure 2, 4a).

Referring to claim 14, England discloses the device further comprising a remote-controlled object (also printed circuit board 13) that transmits and/or receives electrical currents via said slip ring unit.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 4 – 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen in view of Kameda et al. (U.S. Patent No. 5,357,160).

Referring to claim 4, Larsen discloses the claim invention except for the printed circuit does not clearly show starting at said connecting points, one or several of conductors over at least a partial area of said printed circuit board are directed radially away from an axis of rotation of said slip ring unit.

Kameda discloses in his invention a printed circuit board (figure 2) wherein the connecting points, one or several of connectors over at least a partial area of said printed circuit board are directed radially away from an axis of rotation of said slip ring unit for connecting an external means (lines 67 – 68, column 3).

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the position of the connector in printed circuit board as taught by Kameda. Doing so would connect an external mean with the slip ring.

Referring to claim 5, Kameda teaches said geometrically determined pattern of said connecting wires is designed in such away that said printed circuit board could only be attached in a predetermined position (figure 2).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen in view of Taguchi et al. (U.S. Patent No. 3,913,114).

Referring to claim 7, Larsen teaches the device having the claimed invention except for the remote-controlled object comprises a camera.

Taguchi discloses a remote-controlled having a camera for controlling a certain determined rotating position of motor.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the controlled-controlled as taught by Taguchi. Doing so would control a certain determined rotating position of motor.

5. Claims 11, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over England in view of Larsen.

Referring to claim 11, England discloses the claim invention except for the added limitation of the outer portion of said slip ring unit is used as said stator and an inner portion of said slip ring unit is used as said rotor.

Larsen teaches the slip rings unit having the outer portion of said slip ring unit is used as said stator and an inner portion of said slip ring unit is used as said rotor for providing a connection path.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the slip ring unit as taught by Larsen. Doing so would provide a connection path in to the motor.

Referring to claim 16, The combination of England and Larsen disclose a device for transferring electric currents, comprising a slip ring unit (1) having a stator (not show) with connecting wires (17-19) and a rotor (20), and a printed circuit board (13) fastened to said stator, said printed circuit board having conductors (11) that are in electrical contact with said connecting wires (17-19) of said stator; and connecting points, wherein said printed circuit board is used as a torque support; wherein an outer portion of said slip ring unit is used as said stator and an inner portion of said slip ring unit is used as said rotor and several ones of said connecting wires are conducted out of said stator in accordance with a geometrically determined pattern and

said connecting points with said connecting wires on said printed circuit board are arranged in a pattern that is in accordance with said geometrically determined pattern (figure 2, 4a).

6. Claims 12 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over England in view of Kameda.

Referring to claim 12, England discloses the claim invention except for the added limitation of one or several of said conductors over at least a partial area of said printed circuit board are directed radially away from an axis of rotation of said slip ring unit.

Kameda discloses in his invention a printed circuit board (figure 2) wherein the connecting points, one or several of conductors over at least a partial area of said printed circuit board are directed radially away from an axis of rotation of said slip ring unit for connecting an external means (lines 67 – 68, column 3).

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the position of the connector in printed circuit board as taught by Kameda. Doing so would connect an external mean with the slip ring.

Referring to claim 13, Kameda teaches said geometrically determined pattern of said connecting wires is designed in such away that said printed circuit board could only be attached in a predetermined position (figure 2).

7. Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over England in view of Taguchi.

England teaches the device having the claimed invention except for the remote-controlled object comprises a camera.

Taguchi discloses a remote-controlled having a camera for controlling a certain determined rotating position of motor.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the remote-controlled as taught by Taguchi. Doing so would control a certain determined rotating position of motor.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen as applied to claim 1 above, and further in view of Taguchi.

England teaches the device having the claimed invention except for the added limitation of the remote-controlled camera.

Taguchi discloses a remote-controlled having a camera for controlling a certain determined rotating position of motor.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the remote-controlled as taught by Taguchi. Doing so would control a certain determined rotating position of motor.

5. Claims 18 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of England in view of Taguchi as applied to claim 15 above, and further in view of Funk (U.S. Patent No. 3,757,042).

Referring to claim 18, the combination of England and Taguchi teaches the claimed invention, except for the added limitation of the device further comprising a tilt drive.

Funk teaches a device having a tilt drive (52, figure 4) for tilting the camera (31).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device having a tilt drive as taught by Funk. Doing so would tilt the camera in predetermined direction.

Referring to claim 19, Funk teaches the device having a pivot drive (44) that pivots the camera independent of said tilt drive.

Remark

9. This office action is made non-final rejection based on the final rejection filed on 11/20/03 of the application 10/043885.

10. Applicant's arguments about the torque of prior art (Larsen), and slip ring unit of England prior art had been discussed in application 10/043885 final rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (571) 272-2032. The examiner can normally be reached on M-F (8:30-6:00) first Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leda T. Pham
Examiner
Art Unit 2834

LTP
August 23, 2004

DANG LE
PRIMARY EXAMINER